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A model intended for building the design education in the context of cultural variety and continuity: Sille design studio

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Abstract

Design studio in architectural design education is a process, built in the frame of different methods related to the aims those the studio instructor/s wants to learn, where the knowledge gained from other lessons is synthesized. The aim of this study is to make the architect candidates do the investigation related to the “place”, and live the experience of using the properties unique for the place as design criteria. Konya – Sille settlement an old Turkish – Greek settlement exhibiting an environment the people from different culture and religion lived together for a long time is given as the site area. The design problem is determined as “hospitality place” in this area where is under conservation and has a unique traditional texture. The stages in the studio process (i. Analyses, ii. Synthesis, iii. Evaluation) are evaluated for each student. The design products of the students fulfill the goals at the end from the point of adaptation to the physical and the cultural contexts.

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1. Introduction

The topics of "Cultural Variety and Continuity" are the concepts those find value and importance in the process of conservation, localness, originality, being respectful to the existing values and transferring these values to the next generations. These concepts are generally handled by society scientists, economists, city planners and architects. Analyses, proposals are brought for different aims. The relationship of architecture area with these concepts is in the context of society and space. While the society gains importance especially in cultural development and historical process, space includes wide usage areas from urban scale to action area. The formation process of these usage areas is determinative on the quality of the final product meaning architectural design work. In the process of the architectural work formation, the existing built - natural environment, the quality and the quantity of these, the contribution that the designed final work will provide for the texture/settlement it is placed in are the issues to analyze and provide data in the beginning of the process. In this continuum, every work of art formed as related with the style of the designer to handle the design, his experiences and level of sensitivity would leave a positive/negative trace in its environment. In this sense, there is no problem for every new building to affect its environment positively and provide contribution. However, the negative attitudes rejecting the existing one and not suiting the characteristics of the place will be accepted as the applications of low quality. At this point, the loser will be the

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texture having a quality, originality and a value itself. When the concepts of cultural variety and continuity, forming the basic point of view in our study, are handled in architectural meaning, the settlements hosting a determined building culture provided their continuity by tradition come to mind firstly. These textures varied by the evaluation of the opportunities the nature offers to the settlement residents and the geographical values of the place, formed according to the life style in cultural meaning and carrying the characteristics peculiar to the place also carry importance with their historical richness. The textures having these qualities, like all other cities and settlements, change, keep up with the changes, include the new one and present to humanity with the aim of development and economical income. In a continuum like this, the new building process respectful to the existing one gains importance. Özer (2004) emphasized that when the history and tradition concepts are handled, architecture in other words space arrangement phenomenon suddenly takes over.

The subjects of what the contribution of architecture profession to the textures with quality can be and which questions should be answered in design process find their place in the agenda of architectural education schedule. The issues related to this problem handled in education process can be effective in conceptual courses but they are also effective on the design studios, which are the basic courses of the architectural education in experiencing the process ending with a concrete solution.

“Architectural design studios are educational environments that professional education and art education is conducted jointly. These studios are premised on a particular kind of pedagogy defined as “learning by doing” and architectural curriculum has been based on “learning by doing” in the design studio” (Çıkış and Çil, 2009; Kurt, 2009). Traditionally, the practice of architectural design is learned through a project-based "studio" approach. In studio, designers express and explore ideas, generate and evaluate alternatives, and ultimately make decisions and take action (Luen and Gross, 1997). Design studio in architectural design education is a process, built in the frame of different methods related to the aims those the studio instructor/s wants to learn, where the knowledge gained from other lessons is synthesized. In this process design area and design problem itself happen to be means; selected place and subject serve the determined aims.

In this study about a studio experience; the process of the discussions on culture, history, religion, texture, tradition, originality, continuity concepts upon context/place and new design realization in an existing texture in the direction of these concepts are explained. Context can be defined as the components affecting the formation of something. It is possible to read the components belonged to that context in the spaces formed by people according to their own life styles and the geographical characteristics of the "place" they live in (Aydın, 2008). Contextual suitability is a problem, which does not always depend on fixed measures and can show variety according to the circumstances. When it is necessary to build a new addition/building in an existing environment, generally different solutions occur between similar and opposite approach (Aydınlı, 1990).

The contextual suitability in design requires the analyses studies depending on the editing first. These analyses depend on a conceptual structure testing the perceived suitability directed at the settlement and form, so the spatial arrangement exposing the visual effect in environmental scale expresses the entrance axes, landscape decisions, moving back or forward strategies and environmental location organization. Massive movement is exposed by floor number, silhouette, universal variety of the form, proportion, horizontal and vertical reflections. The facade composition is defined by the surface movement (fullness - emptiness) and color texture (Groat, 1988).

The context/place handled in the study to make a decision in similar and opposite approaches is Sille settlement, an old Turkish - Greek settlement, exhibiting environments people having different culture and religions lived in together for a long time and has different climate and texture characteristics. Sille settlement located 9 km away to the Konya city centre placed in Middle Anatolia is an area under conservation and has a unique traditional texture. The "hospitality space" design in this texture is determined for the Selcuk University 2nd year architecture students with the aim of experiencing the design process upon the concepts peculiar to the place. The students are wanted to analyze the characteristics of the place (building culture, daily life, history... etc.) and produce architectural projects formed in the direction of conceptual substructure. The phases of the studio are:

- i. Analyses (concepts related to place/design problem - discussion - traces)
- ii. Synthesis (integration) (function scheme, modelling, organization)
- iii. Evaluation

2. Method

In the study, the designs produced in studio are analyzed in two headlines and evaluated by clustering analyses. With this technique providing the placement of the data in separate clusters according to the variables, it is aimed to make the (space organization - inside/outside, formal, socio - cultural and structural) analyses of the designs produced in the studio, the values peculiar to place and principles in the action of designing a new building in the historical texture. With the findings of these analyses and the clustering analyses of the designs, the evaluation is realized according to the success proportion. The design of each student is evaluated by the triple likert type scale as good [3], fair [2] and poor [1]. The evaluation is made with both the total success and the data obtained in the scope of the criteria. The phases of the analyses forming the study method are shown in the table below.

Table 1. Phases of the study

I. PHASE		II. PHASE - Awareness belong to the place		III. PHASE	IV. PHASE
The analyses made in the scope of design principles In conservation areas [A]	<ul style="list-style-type: none"> * The applications where the historical buildings are protected as they are [A1] * The applications where the original facade of the historical buildings are completely protected and the silhouette is not changed [A11] * The applications where the silhouette of the historical buildings is changed [A12] * The applications where some part of the historical buildings is protected [A13] * The applications realized in suitable formation to the historical texture [A2] * Reconstruction applications [A3] * The applications realized as opposite to the historical texture formation (material, design understanding etc.) [A4] 	The design analyses from the point of space tradition and socio - cultural place context [B]	<ul style="list-style-type: none"> * Socio - cultural values [B1] * The morphology of city and street texture [B2] * Settlement and street silhouettes [B3] * The relationship of street, building and human scale in settlement texture [B4] * Urban cavities in settlement texture (square, fountain, etc.) [B5] * Landmarks in the settlement (church, chapel, mosque, municipality building) [B6] * The topography usage form in settlement texture and its variations [B7] * The relationship and completeness of the inside - outside in building scale [B8] * The relationship between the building and the green area (trees with fruit or vegetation) placed in the courtyard/hayat of the buildings [B9] * Building space organization [B10] * The formation parallel to the religious belief and life [B11] * The formations in the street and courtyard facades [B12] 	Clustering Analyses	Findings and Evaluation

3. Context and studio experience

3.1. Design principles in historical texture

New design in historical texture is made in the basis of some principles like being respectful to the existing one, transferring to the next generations without changing and making it lose its effectiveness in the texture, providing continuity without giving harm to the context and fulfilling the requirements.

“A designer contemplating new construction in a historic setting may adopt one of four strategies based on four possible attitudes toward the existing setting or resource: 1) literal replication, 2) invention within the same or a related style, 3) abstract reference, and 4) intentional opposition. These options represent a range of responses to the call for “differentiated” yet “compatible” designs for additions or infill construction in historic settings found in the Secretary’s Standards. Let’s consider each of these strategies in relation to both the Standards and historic practices and with respect to the differing views of the resource implied by each strategy” (Anonymous, 2007). Moreover, Korumaz (2011) mentioned that the reconstruction applications are evaluated in this scope in the classification he made in his facadism in conservation study.

The examples that attract attention in the texture as silhouette, the designs affecting the perception and sensation of the original one negatively, also the ones exhibiting unsuitability with their rhythm, wideness, fullness - emptiness proportions will be the applications giving harm to the texture under conservation. In this context, it is necessary to analyze the original one. These analyses will give the input for the four strategies mentioned above to the designer. First, the ones that should be known in the meaning of physical structure can be listed as:

- *City and street texture formation and its effect on silhouette,
- *The relationship of street, building and human scale,
- *Urban cavities in settlement texture,
- *The topography usage form and its variations,
- *Indoor - outdoor space relationship and completeness in the dwellings forming the texture,
- *Facade character
- *Fullness - emptiness.

3.2. Context, culture and history settlement: Sille

Sille as a district of Konya having a rooted past in Anatolia is qualified as the seat of culture and civilization. Sille known as an antique Greek settlement in historical period, turned into a settlement where the Muslims live together after the Orthodox Turks and Seljuks. In Ottoman period, the population increased in Sille and it became a town (Sarıköse, 2008). Sille was more alive than Konya in the sense of economy until the years of barter and trade, carpet business, pottery, viniculture, stone workmanship were the reasons of socio - economic development. With the Lausanne Agreement Greece and Turkey wanted the obligatory immigration of their own citizens because of the religion in 1923. The barter was made and the Greeks in Sille immigrated to their own country. At the same time, some of the immigrants coming to Anatolia settled in Sille. Tapur (2009) mentioned that Sille suffered from socio - economical point of view after the barter and the population decreased depending on that. When the historical settlement situation in Sille is considered, three important periods (i. period before Christianity, ii. period of Christianity, iii. period of Islam) can be seen in the region. Sille hosted the first shelters and temples of Christians with its stone topography convenient to dig and carve easily. The monastery and rock churches still exist in the settlement (Tapur 2009). Sille being a witness of a rich history and culture exhibits this character in spatial variety. Mimiroğlu (2012) mentioned that there are almost 60 churches in Sille in 1913. Now there are stonework churches, chapels, houses, Aya Elenia Museum, Tepe Chapel, mosques, baths, fountains, public laundries, public buildings, waterways and some sort of civil architectural buildings in Sille. Aya Elenia Church of Byzantine period is restored and given the function of a museum. As Sille has an important place in Turk Islam Art, there are mosques dated to 18th and 19th centuries exhibiting interior wood art characteristics like Kurtuluş Mosque (Mormi Mosque), Subaşı

Mosque, Mezaryakası Mosque, Orta Mahalle Mosque and Çay Mosque. The civil architectural texture attracts attention in Sille as an urban site area.

There are two districts having different religious lives in Sille carrying valley settlement characteristics. However as different from similar other settlements there are districts in Sille where Muslims and non - Muslims live together. Sille brook (dried today) was a factor for the location of the dwellings and the mountain in the south of the brook obstructed the settlement to grow towards that direction. The original settlements under conservation form an arc in northeast - southwest direction. There are fountains in the intersection point of some streets covered by stone.

Dwellings have generally double floors. The relationship of the dwellings located around twisted narrow streets with the exterior is provided directly with a door opened through the street (Figure 1). The doors and windows are small, low and narrow in the dwellings and there are rooms, storage and kitchen in the ground floor. On both floors the main spaces open to the sofa/transition space, there can be balconies in front of the spaces in upstairs or it can be possible to widen the usage areas, provide visual relationship with the outside and increase the view angle by the use of oriel. Kitchen shows generally a double space organization in ground floor. This formation can be named as cooking section and storage section. Storage areas generally carry appropriate conditions for food storage in rock carvings. In the scope of the space relationship from the religion angle, although the Muslim and Christian dwellings generally has formal similarity (material, silhouette, etc.), there are differences in the space transparency, permeability and the way it opens to the outside and the space.

Dwellings are Sille constructed from natural materials. The Sille stones are the main materials and shaped the buildings. Wood and adobe are other construction materials. Adobe is used in service spaces of the houses.



Figure 1. Plan of Sille settlement.



Figure 2. View of Sille settlement

3.3. *The experience of the architectural design studio in the context of cultural variety and continuity*

Studio experiences are very important for students as they form the main skeleton of the architectural education and the real development happens with the acquisitions in its environment. The real accumulation related to the design develops in the studio process and a development in this context is observed during the profession life. For this reason it is necessary to make a good editing of the acquisitions in the design problem determined in the studio that will contribute the student and be directed by the studio instructors. Studio process is an environment where there are mutual interactions.

In Sille design studio it is aimed for students to design in the context of conservation and from the point of socio - cultural and spatial tradition. In this scope the design problem belonged to the space is determined as considered upon the visit concept which is an important fact of Anatolia culture. It is wanted from students to develop a design for a hospitality space peculiar to the place away from the consumption culture and globalized world values. In the scope of the study, 18 students of the ones in Studio 4 Spring Semester in 2010 - 2011 in Department of Architecture in Selcuk University were selected. The interactions happened in studio process in the scope of the principles mentioned in the method chapter of the study; presentations were done, the students are provided to make observations in Sille. In this process, students' acquisitions are obtained by the means of the interviews with the people living in Sille and individual observations of the spaces. The design works obtained at the end of design studio are evaluated in Table 1 and Table 2 in the context of the criteria related to the Phase I and Phase II explained in method chapter.

Table 2. Sille Design Studio Analyses

[illegible]















DESIGN 9			1						*	1		*	*	*	*							21		
			2									*				*		*	*	*	*		*	
			3														*							
AVERAGE VALUES RELATED TO DESIGNS							2		2	2	$\frac{2}{2}$	2	$\frac{1}{7}$	$\frac{1}{6}$	$\frac{2}{2}$	$\frac{2}{1}$	$\frac{2}{5}$	$\frac{2}{2}$	2	$\frac{1}{7}$	2	$\frac{2}{1}$	$\frac{24}{67}$	
Triple Likert type Scale for A - $1 \leq \text{Poor} \leq 1,67$, $1,67 < \text{Fair} \leq 2,34$, $2,34 < \text{Good} \leq 3$, Triple Likert type Scale for B- $12 \leq \text{Poor} \leq 20$, $20 < \text{Fair} \leq 28$, $28 < \text{Good} \leq 36$																								

Table 3. Silke Design Studio Analyses

DESIGNER	DESIGN MODEL	DESIGN DIAGRAM	CLUSTERING VALUES	The analyses made in scope of the design principles in conservation areas [A]						The design analyses from the point of space tradition and socio - cultural place context [B]															
				A1			A2	A3	A4	[A]	CLUSTERING	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	[B]	CLUSTERING
				A11	A12	A13																			
DESIGN 10			1																					26	
			2					*		2			*	*	*	*	*	*	*	*	*	*	*		*
			3								*	*													
DESIGN11			1									*												23	
			2				*			2	*		*	*	*	*	*	*	*	*	*	*	*		
			3																						
DESIGN 12			1																					30	
			2							3	*				*	*		*	*		*				
			3						*		*	*	*			*				*		*			*
DESIGN 13			1									*	*											22	
			2						*	2	*			*	*	*	*	*	*	*	*	*	*		
			3																						
DESIGN 14			1																	*		*	22		
			2							3	*	*	*	*	*	*	*	*	*		*				
			3						*																
DESIGN 15			1									*			*								23		
			2						*	2	*		*	*		*		*	*	*	*	*		*	

It is observed that *settlement and street silhouettes* [B3] awareness is the most unsuccessful [X_{avg} 1.83] design fact. It is also can be said that the design studies done in the scope of *building space organization* [B10] could not reach enough maturity although they were in the average level [X_{avg} 1.89]. Although in studies which paid attention to the socio - cultural and space tradition awareness [B], *the relationship of street, building and human scale in the settlement texture* is good, the studies having less awareness belonged to the values of socio - cultural and space tradition had the values lower than the average [X_{avg} 1.94] value.

It is seen that the students were successful [X_{avg} 2.48] in the analyses done in the scope of *the topography usage form and its variations in settlement texture* [B7]. Besides it is determined that a good level was reached for *the socio - cultural* [B1] awareness with the value of [X_{avg} 2.17].

In studio study the students made their main design decisions in the first phase [A] and depending on this they enriched the design in the second phase [B]. Designs 1, 2 and 18 [31] which decided the way to design under the effect of the examples and the discussions related to the new design in conservation areas in the first phase of the study and succeeded, were also the most successful studies in Phase II.

It is determined that the designs produced in the studio process edited in the scope of cultural variety and continuity was generally successful. The area size of the spatial program in the design studio forced the designers so the view of decreasing the spatial size in design areas having dense design problem like this type exposed.

4. Conclusion

Architecture students improve their design abilities in studio environment. For this reason, the specific determination of the design problem in studio environment, the analyses of characteristics belonged to context/place, documentation in place, photograph, the improvement of the spatial perception with interview causes the unique designs and awareness to expose. In the studio environment constructed in the scope of cultural variety, awareness and continuity, making conceptual discussion and reading the variety belonged to the socio - cultural and space tradition of the place provide possibility for the designers to improve different perspectives. In this phase the discussion about the concepts and principles of designing in historical/cultural texture upon the examples in the world contributed to the students to improve different points of view. Handling the experience of a new design in the textures with identity housing original characters as a design problem in the studio environments where the students gain the design abilities in architectural education will contribute their improvement. The study to give the experience related to the context in education process will bring in the sensitivity for textures/settlements that are needed to be conserved and provided its continuity as both a designer and a user - a human being in the society.

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